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DR-943 September 1977

#### METEOROLOGICAL DATA REPORT

14818C LANCE MISSILE NO. 3292, ROUND NO. 298 APT (24 AUGUST 1977)

BY

WSMR METEOROLOGICAL TEAM

ATMOSPHERIC SCIENCES LABORATORY WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM
SUNITED STATES ARMY ELECTRONICS COMMAND



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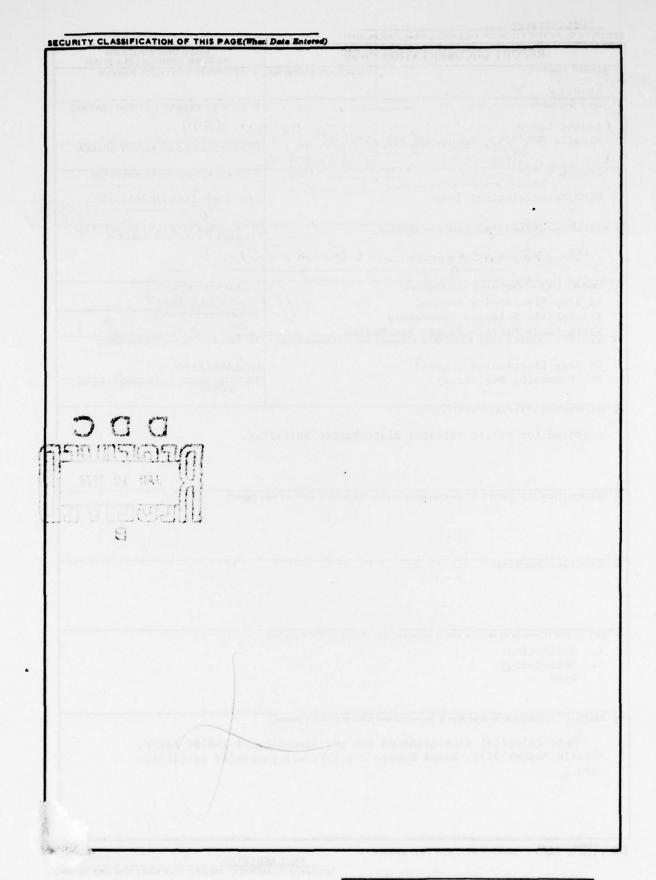
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Meteorolog	gical data gathered	for the launchin	ng of 14818C Lance,
Missile Number	3292, Round Numbe	r 298 APT, are p	resented in tabular
form.			
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# CONTENTS

		PAG
INTRODUC	CTION	1
DISCUSSI	ON	1
TABLES		
I.	Surface Observations taken at WSD	1
II.	Pilot-Balloon-Measured Wind Data, Release No. 1 at 0900 MDT	2
III.	Anemometer-Measured Wind Speed and Direction, Pole No. 1 at 0900 MDT	4
IV.	WSD Significant Level Data (Release Time: 0850 MDT)	5
v.	WSD Upper Air Data (Release Time: 0850 MDT)	e
VI.	WSD Mandatory Levels (Release Time: 0850 MDT)	10
VII.	Apache Significant Level Data (Release Time: 0915 MDT)	11
VIII.	Apache Upper Air Data (Release Time: 0915 MDT)	12
IX.	Apache Mandatory Levels (Release Time: 0915 MDT)	16
х.	Holloman Significant Level Data (Release Time: 1000 MDT)	17
XI.	Holloman Upper Air Data (Release Time: 1000 MDT)	18
XII.	Holloman Mandatory Levels (Release Time:	22

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#### INTRODUCTION

14818C Lance, Missile Number 3292, Round Number 298 APT, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 0900 HRS MDT, 24 August 1977. The scheduled launch time was 0900 HRS MDT.

#### DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	3,989.0	FEET/MSL
PRESSURE	880.0	MBS
TEMPERATURE	26.1	°C
RELATIVE HUMIDITY	52	, %
DEW POINT	15.6	°C
DENSITY	1,015	GM/M <sup>3</sup>
WIND SPEED	10	мрн
WIND DIRECTION	060	DEGREES
CLOUD COVER	0 7	Cu Ci

TABLE I. SURFACE OBSERVATIONS TAKEN AT WSD, 0900 HRS MDT/24 AUGUST 1977.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	030	6.0	2100	106	3.5
100	045	1.0	2200	090	3.5
200	011	5.0	2300	059	3.0
300	001	8.5	2400	011	2.5
400	344	8.0	2500	344	3.5
500	353	8.0	2600	338	5.5
600	356	7.5	2700	339	7.0
700	360	6.0	2800	344	7.0
800	347	4.5	2900	348	7.0
900	346	2.0	3000	351	6.5
1000	360	1.0	3100	351	6.0
1100	104	2.0	3200	355	5.5
1200	113	4.0	3300	360	4.5
1300	110	7.5	3400	360	4.0
1400	114	8.5	3500	009	3.0
1500	118	8.5	3600	018	3.0
1600	125	8.0	3700	027	3.0
1700	132	6.0	3800	040	4.0
1800	127	5.0	3900	045	4.0
1900	126	4.5	4000	040	4.0
2000	120	4.0	4100	045	3.5

TABLE II. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-36, AT 0900 HRS MDT/24 AUGUST 1977
14818C LANCE, MISSILE NO. 3292, ROUND NO. 298 APT

### PIBAL RELEASE POINT WSTM COORDINATES:

X = 504,465.56 Y = 190,780.55 Z = 4,040.71

APPROXIMATELY: 6 MILES WEST OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

(unx aux	DIDECTION	GDFD
HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	039	3.0
4300	022	2.5
4400	027	2.0
4500	027	2.0
4600	034	2.0
4700	034	2.0
4800	018	1.5
4900	360	1.0
5000	315	0.5
5100	297	1.1
5200	297	1.1
5300	270	1.5
5400	270	1.5
5500	270	1.5
5600	270	1.5
5700	252	1.5
5800	252	1.5
5900	252	1.5
6000	256	2.0
6100	243	2.0
6200	225	2.0
6300	225	2.0
6400	207	2.0
6500	194	2.0
6600	191	2.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6700	191	2.5
6800	202	2.5
6900	202	2.5
7000	198	3.0
7100	196	3.5
7200	187	4.0
7300	187	4.0
7400	180	4.0
7500	173	4.0
7600	173	4.0
7700	166	4.0
7800	166	4.0
7900	166	4.0
8000	166	4.0
8100	167	4.5
8200	169	5.0
8300	163	5.0
8400	165	5.5
8500	160	6.0
8600	162	6.0
8700	159	7.0
. 8800	159	7.0
8900	160	7.5
9000	162	8.0

TABLE II. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

SPEED (MPH)	DIR DEG
08	286
08	284
07	283
08	288
08	289
	(MPH)  08  08  07  08

TABLE III. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION POLE NO. 1
14818C LANCE, MISSILE NO. 3292, ROUND NO. 298 APT LAUNCHED FROM LC-39, 0900 MDT/24 AUGUST 1977

WSTM COORDINATES: X = 1/4 MILE NORTH OF T-9

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

REL. HUM. PERCENT	0.000000000000000000000000000000000000
RATURE DEWPOINT CENTIGRADE	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
TEMPER AIR I	26.1 14.5 111.1 12.9 12.9 13.9 14.0 14.0 14.0 14.0 14.0 14.0 14.0 14.0
GEOMETRIC ALTITUDE MSL FEET	3989.0 10484.8 115679.0 17000.5 19435.1 23234.1 23234.1 225052.2 25785.2 25052.2 25052.2 31071.7 31435.2 31958.0 44338.0 46824.5 51831.4 57616.1
PRESSURE MILLIBARS	880.0 700.0 700.0 700.0 700.0 700.0 700.0 700.0 700.0 700.0 700.0 700.0 700.0 700.0 700.0 700.0

L MSL	
FEET	S MDT
989.00	0850 HR
TUDE 3	679
I ALTI	ON NO
STATION	24 AUG. 77 0850 HRS MDT ASCENSION NO. 623

UPPER AIR DATA
2360020623
WHITE SANDS
TABLE V.

GEODETIC COORDINATES 32.40043 LAT DEG 106.37033 LON DEG

INDEX OF REFRACTION	1.000303	1.000293	1.000283	1.000277	1.000271	1.000266	1.000260	1.000254	1.000249	1.000244	1.000239	1.000234	1.000229	1.000224	1.000220	1.000215	1.000210	1.000206	1.000202	1.000198	1.000194	1.000190	1.000186	1.000182	1.000180	1.000179	1.000177	1.000172	1.000167
SPEED KNOTS	6.6	9.0	8.2	7.4	9.9	6.3	0.9	4.7	3.4	2.5	1.5	2.0	2.7	3.2	3.3	•	4.7	2.6	4.9	6.9	•	7.2	7.2	7.2	7.5	8.0	8.6	4.6	10.1
WIMD DATA DIRECTION SI DEGREES(TN) KI	20.0	21.6	23.5	52.9	28.4	29.0	59.6	2.72	22.3	4.1	321.6	265.6	245.6	234.4	213.8	196.3	183.9	178.5	177.1	181.9	187.8	196.9	205.8	214:3	223.9	234:1	244.8	253.4	258.7
SPEED OF SOUND KNOTS	676.5	675.4		673.2	•	671.0	6.699	668.8	7.799	9.999	665.5	4.499	663.3	662.2	2.099	659.1	657.5	622.9	654.4	652.8	651.2	9.649	648.1	646.5	6.449	643.3	641.7	640.7	639.7
DENSITY S GM/CUBIC METER	1016.5	1002.1	988.1	0.476	960.1	946.3	932.8	919.5	906.3	893.4	880.6	868.0	855.6	843.5	832.0	820.6	809.5	798.5	787.7	777.0	766.5	1.957	745.9	735.8	725.6	715.4	705.3	694.1	683.0
REL.HUM. PERCENT	53.0	50.5	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.6	49.5	49.8	50.3		-	52.1	52.6	53.2	÷	58.9	4.99	74.0	68.5	65.9
PERATURE DEWPOINT CENTIGRADE	15.8	14.3	12.8	11.9	11.1	10.3	9.5	8.6	7.8	•	6.2	5.4	4.5	3.7	2.7	1.6	9.	<b>†••</b>	-1.5	-2.5	-3.6	9.4-	-5.7	-6.8	6.9-	9-9-	-6.5	-8.3	-10.1
TEMP AIR DEGREES	26.1	25.3	24.5	23.6	22.7	21.8	20.9	20.0	19.1	18.2	17.3	16.4	15.5	14.6	13.3	12.0	10.7	4.6	8.1	6.8	5.5	4.2	5.9	1.6	.2	-1.1	-2.5	-3.3	-4.1
PRESSURE MILLIBARS	880.0	864.6	849.8	835.0	820.3	805.4	791.8	4.777	764.3	750.9	737.1	724.8	712.1	9.669	686.8	2.419	661.9	9.649	637.9	626.2	614.8	603.5	592.5	581.6	570.8	560.0	249.4	538.9	528.6
GEUMETRIC ALIITUDE MSL FEET	3989.0	4500.0	50000	5500.0	0.0009	0.0059	7000.0	7500.0	80000	8500.0	0.0006	0.0056	100000	10500.0	11000.0	11500.0	12000.0	12500.0	13000.0	13500.0	14000.0	14500.0	15000.0	15500.0	16000.0	16500.0	17000.0	17500.0	18000.0

STATION	ALTITUDE	3989.00 FEET	ET MSL
24 AUG. 77		0850 HRS MDT	MDT

UPPER AIR DATA 2360020623 WHITE SANDS

GEODETIC COORDINATES 32.40043 LAT DEG 106.37033 LON DEG	PERATURE REL.HUM. DENSITY SPEED OF WIND DATA INDEX DEWPOINT PERCENT GM/CUBIC SOUND DIRECTION SPEED OF CENTIGRADE METER KNOTS REFRACTION
32 32 106	SPEED KNOTS
	WIND DA DIRECTION DEGREFS(TN)
SS NONT)	SPEED OF SOUND KNOTS
PFER CAR DAIN 2360020623 WHITE SANDS TABLE V. (CONT)	DENSITY GM/CUBIC METER
	REL.HUM. PERCENT
TATION ALTITUDE 3989.00 FEET MSL 4 AUG. 77 0850 HRS MDT SCENSION NO. 623	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE
FATION ALTITUDE 398 FAUG. 77 CENSION NO. 623	EUMETRIC PRESSURE TEMP LIITUDE AIR SL FEFI MILLIHAMS DEGREES
TATION AL 4 AUG. 77 SCENSION	EUMETRIC LIITUDE SL FEFT

INDEX	REFRACTION	1.000163	1.000158	1.000154	1.000151	1.000148	1.000146	1.000143	1.000140	1.000136	1.000133	1.000131	1.000129	1.000126	1.000123	1.000121	1.000119	1.000118	1.000117	1.000114	1.000112	1.000109	1.000107	1.000105	1.000104	1.000102	1.000100	1.000099	1.000097	1.000095	1.000093
SPEED	KNOTS	10.4	10.6	11.3	12.7	14.3	14.9	15.3	15.6	16.0	16.4	16.6	15.7	14.5	13.2	12.8	13.1	14.2		•	6.6	10.3	11.2	15.6	13.2	13.4	13.2	13.1	12.9	12.2	11,8
WIND DA	DEGREES (TN) KNO	264.1	270.5	283.1	292.2	298.0	594.5	7.682	282.4	277.5	273,3	568.9	267.5	564.9	260.5	249.7	240.0	234.2	235.4	239:5	247.7	250.9	252.0	252.5	555.6	252.6	251.8	253.8	258.4	267.4	574.9
	KNOTS	638.6	•	636.6	635.4	634.3	633.1	632.0	630.9	630.5	630.1	629.0	657.9	627.0	626.0	654.9	623.6	622.2	620.7	619.3	617.8	616.4	615.0	613.6	612.3	610.9	609.5	608.3	8.909	605.2	603.5
DENSITY S	METER	672.1	661.3	650.7	4.049	630.1	620.1	610.2	6000.3	589.3	578.5	269.0	559.6	550.1	240.8	531.9	523.3	515.1	507.1	0.664	491.0	483.2	475.4	467.5	459.8	452.3	8.444	437.1	430.0	ě.	416.2
REL.HUM. PERCENT		57.4	51.8	6.94	46.3	45.7	45.1	44.5	43.4	36.7	30.1	34.7	33.2	56.9	20.7	21.8	28.1	39.9	51.7	44.3	36.3	28.4	25.1	27.5	59.9	32.3	ŧ.	35.3	6	27.4	25.0
MPERATURE	CENTIGRADE	-12.0	-14.0	-16.0	-17.0	-18.0	-19.0	-20.0	-21.1	-23.3	-25.7	-25.0	-26.3	-29.5	-32.5	-32.8	-31.1	-28.5	-56.9	-59.6	-32.6	-36.1	-38.3	-38.4	-38.6	-38.8	-39.1	-39.8	-42.5	•	-46.3
TEMP	DEGREES	6.4-	-5.7	-6.5	-7.5	-8.4	-9.3	-10.3	-11.1	-11.4	-11.8	-12.7	-13.6	-14.3	-15.0	-16.0	-17.0	-18.2	-19.5	-20.6	-21.7	-22.9	-24.0	-25.1	-26.2	-27.3	-28.4	-59.4	-30.6	-31.9	-33.2
PRESSURE	MILLIBARS	518.4	508.5	1.864	489.0	479.5	470.1	461.0	452.u	443.1	434.0	452.b	417.3	n·60+	4004	392.8	384.7	377.1	369.5	361.9	354.5	347.2	340.1	333.0	326.0	319.2	312.5	305.7	299.5	293.0	7.987
GEUMETRIC ALIITUDE	MSL FEET	18500.0	19000.0	19500.0	20000-0	20500.0	21000.0	21500.0	22000.0	22500.0	23000.0	23500.0	24000.0	24500.0	25000.0	25500.0	2600000	26500.0	27000-0	27500.0	28000.0	78500.0	2900000	79500 • 0	2000000	30500.0	31000.0	21500.0	32000.0	32500.0	33000.0

MSL	
3989.00 FEET	0850 HRS MDT
STATION ALTITUDE	24 AUG. 77

GEODETIC COORDINATES	32.40043 LAT DEG	106.37033 LON DEG	
UPPER AIR DATA 2360020623	WHITE SANDS	TABLE V. (CONT)	

INDEX OF REFRACTION	1.000092	600000	1.000088	1.000087	•	•	1.000082	•	1.000079	1.000078	1.000077	1.000075	1.000074	1.000073	1.000071	1.000070	1.000069	1.000068	1.000066	1.000065	1.000064	1.000063	1.000062	1.000060	1.000059	1.000058	1.000057	1.000056	1.000055	1.000054
DATA 1 SPEED 1) KNOTS	11.6	11.8	•		•		16.3	9	•		16.2	•	16.3	16.5	16.8	17.0	16.8	17.1	•	18.9	•	21.1	-	20,9			17.0		'n	55.4
WIND DA DIRECTION DEGREES(IN)	279.2	277.0	272.1	265.0	257.0	251:3	249.8	250.8	252:7	254.3	255.9	257,8	526.9	255.5	255.4	256.2	258.2	262.5	267:1	568,6	269.3	269.5	568.9	270.0	270.5	263.0	251.3	238.2	234.4	233.7
SPEED OF SOUND KNOTS	601.9	600.3	598.8	597.3	595.8	594.3	592.7	591.1	589.5	587.9	586.3	584.7	583.1	581.5	579.9	578.3	576.7	575.1	573.5	571.9	570.3	568.7	567.1	565.6		562.6	561.1	559.7	558.5	557.3
DENSITY S GM/CUBIC METER	4.604	402.8	395.9	389.2	382.6	376.0	369.5	363.0	356.7	350.4	344.3	338.3	332.4	326.7	321.0	315.4	309.6	303.9	298.3	292.8	287.5	282.2	276.9	271.5	266.2	261.0	256.0	250.8	245.5	240.3
REL.HUM. PERCENT	22.7	20.3	15.7**	•	2.9**	1.0**																								
TEMPERATURE AIR DEWPOINT EGREES CENTIGRADE	-48.3	-50.4	-53.6	-57.5	-63.1	-75.9																								
TEMP AIR DEGREES	-34.5	-35.7	-36.9	-38.1	-39.3	5.04-	-41.7	-45.9	2.44-	-45.4	9.94-	6.44-	-49.1	-50.4	-51.6	-52.8	-54.0	-55.2	-56.5	-57.7	-58.9	-60.1	-61.3	-62.4	-63.5	9.49-	-65.7	1-99-	-67.6	-68.5
PRESSURE MILLIBARS	280.5	274.5	268.5	562.6	256.8	251.2	245.5	239.9	234.4	229.1	223.9	218.8	213.8	208.9	204.2	199.5	194.1	190.1	185.0	181.1	176.8	172.0	168.4	164.3	160.2	156.3	152.4	148.0	144.7	141.5
GEUMETRIC ALIITUDE MSL FEET	33500.0	34000.0	24500.0	35000.0	35500•0	36000.0	36500 • 0	37000.0	37500.0	28000.0	38500.0	0.00065 ~		0.0000+	40200.0	41000.0	41500.0	42000.0	42500.0	43000.0	43500.0	0.000++	44500.0	42000.0	45500.0	46000.0	46500.0	47000.0	47500.0	48000.0

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES 32.40043 LAT DEG 106.37033 LON DEG	INDEX OF REFRACTION	1.000052	1.000051	1.000050	1.000049	1.000048	1.000047	1.000046	1.000045	1.000044	1.000043	1.000041	1.000040	1.000039	1.000038	1.000037	1.000036	1.000035	1.000034
GEODETI 32. 106.	SPEED KNOTS	25.2	24.8	23.4	21.2	17.2	13.1	9.0	6.3	4.8	4.6	3.6	3.6	6.8	10.9	11.5			
	WIND DATA UIRECTION S DEGREES(TN) K	239.6	246.2	253.6	260.3	265.6	270.3	273.8	564.9	239.3	241.5	256.0	334.0	13.6	31.9	39.8			
STA SONT)	SPEED OF SOUND KNOTS	556.0	554.8	553.5	552.3	551.0	249.8	548.5	547.8	548.2	548.6	549.0	249.4	549.8	548.5	548.9	551.1	553.4	555.6
UPPER AIR DATA 2360020623 WHITE SANDS TABLE V. (CONT)	DENSITY S GM/CUBIC METER	235.2	230.3	225.4	220.6	216.0	211.4	207.0	202.2	196.7	191.3	186.0	180.9	176.0	172.2	167.5	161.9	156.5	151.2
	REL.HUM. PERCENT																		
<b>89.00 FEET MSL</b> 0850 HRS MDT	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	<b>1.69-</b>	-10.4	-71.3	-72.2	-73.1	-74.0	-74.9	-75.4	-75-1	-74.8	-74.5	-74.3	0-14-0	-74.9	-74.6	-73.0	-71.4	8.69-
UDE 39 623	PRESSURE MILLIBAMS DE	137.6		130.6														90.06	. 6.88
STATION ALTIT 24 AUG. 77 ASCENSION NO.	GEUMETRIC ALIITUDE MSL FEET	48500.0	0.00064	49500.0	200000	20500.0	21000.0	51500.0	52000.0	52500.0	53000.0	53500.0	24000.0	24500.0	55000•0	55500.0	2600000	26500 • 0	0.00074

LS.		
MANDATORY LEVELS 2360020623	WHITE SANDS	TABLE VI.

DAT	(TN) KNOTS	8.2	6.1	2.1	3.2	2.6	7.2	8.6	11.3	15.7	13.0	10.1	12.9	16.0	16.9	50.9	19.5	16.4	8.6
DIRE	a	23.5	29.5	9.	234.0	178.4	200.4	544.6	282.2	280.6	258.8	250.5	258.9	250.6	256.5	269.3	237.9	267.0	28.8
REL.HUM. PFRCFNT		48.	48.	48.	48.	20.	53.	74.	47.	42.	20.	31.	30.						
TEMPERATURE R DEWPOINT	S	12.8	10.0	6.9	3.7	1:4	-5.0	-6.5	-15.8	-21.5	-32.9	-34.7	-42.3						
A	DEGREES	24.5	21.4	18.1	14.6	7.6	3.8	-2.4	1.9-	-11.2	-15.1	-22.4	-30.5	1.04-	-52.7	-59.4	1.99-	-72.8	-73.9
PRESSURE GEOPOTENTIAL	FEET	*******	6730.	8556.	10485.	12524.	14682.	16977.	19444.	22122.	25070.	28337.	31991.	36151.	41007.	43793.	.46907	50473.	54733.
PRESSURE 6	MILLIBARS	850.0	800.0	750.0	700.0	0.059	0.009	550.0	200.0	450.0	0.004	350.0	300.0	250.0	200.0	175.0	150.0	125.0	100.0

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GFODETIC COORDINATES 32.62700 LAT DEG 106.39352 LON DEG

PRESSURE	GEONETR	TEMPE	1	I.
MILLIBARS	ALTITUDE MSL FEET	AIR	CENTIGRADE	RCEN
881.3	951	26.7	15.4	50.0
50.	98		13.5	55.0
	70		9.6	44.0
700.0	0	13.9	4.2	52.0
595.8	14863.6	3.1	-3.0	0.49
	17674.5	0.4-	-7.3	78.0
0		1-6-7	-12.3	
80	20751.1	-8.5	-24.1	
0	25052.6	-15.0	-29.4	28.0
m		-17.8	-28.9	37.0
٣.	28224.8	-22.0	-37.4	
0	31965.7	-30.0	-45.6	20.0
2	35128.8	-38.4	-50.6	
0	36116.8	-41.4		
	40944.3	-53.2		
150.0	46835.7	-65.3		
138.3		0-69-		
116.3	51771.3	-75.0		

GEODETIC COORDINATES 32.62700 LAT DEG 106.39352 LON DEG	INDEX OF REFRACTION		•00030	.00029	1.000288	.00027	.00026		1.000253		.0002 €	1.000240		1.000231	.00022	1.000222	1.000218		1.000210			1.000198	1.000194	1.000190	1.000187	1.000183	1.000180		1.000174	1.000170
GEODETI 32. 106.	SPEED KNOTS	7.0	7.0	7.0	• •	6.9	5.8	1.1	2.8	1.6	1.0	.7	*	1.6	2.8	3.8	4.7	4.7	6.4	5.6	4.9	7.6	8.5	6.3	9.6	9.8	9.2	8.8	8.4	8.8
	WIND DATA DIRECTION S DEGREES(TN) K	360.0	360.0	359.7	250.5	359.0	4.3	21.1	32.2	36.4	45.2	58.9	229.8	231.3	229.6	226.5	223.7	212.0	201.0	194.1	192.1	195.1	197.6	199.8	205.2	511.2	219.9	229.3	6	520.9
)A T A	SPEED OF Sound Knots	017.2	6.019	674.6	1.210	672.1	671.8	6.019	669.5	668.2	6.909	665.5	664.2	662.8	661.5	0.099	658.5	657.1	655.6	654.1	652.6	651.1	9.649	648.1	9.949	645.1	643.5	642.0	040.5	639.3
UPPER AIR DAT 236UJ50073 APACHE TABLE VIII.	DENSITY S GAZCUBIC METER	1016 -2	1015.1	1003.9	476.9	960.7	6.846	930.9	918.2	905.6	893.2	881.0	0.598	857.1	845.4	833.7	822.2	810.8	1.661	788.6	177.8	767.1	156.6	746.1	735.4	725.0	714.7	104.5	86	683.8
	REL.HUM. PERCENT	50.0	50.2	52.6	5.1.2	. 8	45.3	9.44	45.7	46.7	47.8	48.9	6.64	51.0	52.0	53.4	54.8	56.1	51.5	58.9	60.3	61.6	63.0	64.7	67.2	1.69	72.2	74.6	77.1	15.4
ET MSL	PERATURE DEUPOINT CENTIGRADE	15.4	15.3	14.4	12.5	11.3	10.1	9.2	8.5	7.8	7.1	4.9	5.7	4.9	4.2	3.4	2.6	1.8	1.0	•5	1	-1.5	-2.4	-3.2	-3.9	9- #-	-5.4	-6.2	-7.0	-8.2
11.40 FEET 0915 HRS MDT	TEMPI AIR DEGREES	26.7	56.5	24.8	22.8	22.6	22.5	21.7	20.6	19.5	18.4	17.2	16.1	15.0	13.9	12.6	11.4	10.2	8.9	1.1	6.5	5.5	0.4	2.8	1.5	•5	-1.0	-2.3	-3.6	-4.5
TITUDE 395	PRESSURE MILLIBARS	881.3	879.8	864.8	835.2	820.8	806.5	192.4	176.5	7.497	151.3	138.0	125.0	712.2	1.469	6.989	4.419	662.1	0.050	638.1	656.5	615.1	603.B	592.7	581.5	570.6	559.8	549.2	538.9	526.6
STATION AL 24 AUG. 77 ASCENSION	GEOMETRIC ALTITUDE MSL FEET	3951.4	0.0004	4500.0	5500-0	0.0009	0.0000	10000	1500.0	800000	8500.0	0.0006	6500.0	10000.0	10500.0	11000.0	11500.0	12000.0	12500.0	13000.0	13500.0	14000.0	14500.0	15000.0	15500.0	16000.0	1.500.0	17000.0	17500.0	16000.0

ETIC COORDINATES 32.62700 LAT 9EG 06.39352 LON DEG	INDEX OF REFRACTION	1.000165	1,000157	.00014	1.000140	.00013	1.000133		1.000128	1.000128		.00012	.00011	1.000113	11000.	1.000109	1.000107	1,000105					.00000	•00000	1.000093
GEONETIC 32.62 106.39	SPEED KNOTS	9.8	11.6	14.5	17.0	18.0	17.6	16.8	15.9	13.9	13.3	13.3	12.3	10.4		12.1	13.8	15.5	15.8	15.6	•	15.0		13.8	13.6
	WIND DATA DIRECTION S DEGREES(TN) K	262.2	288.4		278.7	275.9	276.5	274.0	271.6	262.0	252.9	242.1	239.2	245.3	250.4	252.3	251.8	249.8	249.1	248.5	547.9	250.0	54.6	63.	269.0
DATA )73 (CONT)	SPEED OF SOUND KNOTS	638.3	030.4	634.5	632.6	631.7	629.9	629.0	028.0	020.2	654.9	623.6	622.3	619.5	618.1	616.7	615.4	614.1	612.8	611.4	610.1	8.809	607.4	605.7	604.1
UPPER AIR DA 2360550073 APACHE TABLE VIII. (CC	DENSITY GM/CUBIC METER	672.7	640.4	629.8	608.8		578.5	568.7	559.2	540.5	531.8	523.2	514.9	498-6		482.7	474.6	466.7			443.9	436.5	429.3	2.	415.5
4 F	REL.HUM. PERCENT	71.4	62.1	34.0	27.2	27.3	27.5	27.6	27.8	28.0	31.1	34.5	36.0	28.4	24.7	22.8	22.4	22.0	21.6	21.2	20.8	20.4	20.1	21.0	22.0
T MSL	PERATURE DEWPOINT CENTIGRADE	-9.6	-12.8	-21.2	-25.0	-25.6	-26.8	-27.4	-28.1	-28.1	-29.1	-28.9	-29.5	-31.0	-36.3	-38.0	-39.1	-40.2	-41.3	-42.4	-43.5	9. 44-	-45.7	4.94-	-47.1
51.40 FEET 0915 HRS MDT	AIR DEGREES	-5.3	-6.8	-8-2	9.6-	-10.4	-11.9	-12.7	-13.4	-14.9	-16.0	-17.0	-18.1	-17.2	-21.5	-22.6	-23.7	-24.7	-25.8	-26.9	-27.9	-29.0	-30.1	-31.4	-32.7
UDE 39	PRESSURE MILLIBARS	518.4	489.0	479.5	460.8	451.7	434.1	425.5	417.1	4.00.4	392.8	384.9	377.1	361.9	354.6	347.2	340.0	332.9	325.9	319.1	312.5	306.0	549.6	293.1	286.8
STATION ALTIT 24 AUG. 77 ASCENSION NO.	GEOMETRIC ALTITUDE MSL FEET	14500.0	19500.0	20500.0	21500.0	22000.0	23000.0	23500.0	24000.0	25000-0	25500.0	26000.0	26500.0	27500.0	28000.0	26500.0	29000.0	29500.0	30000.0	30500.0	31000.0	31500.0	32000.0	32500.0	33000.0

SPEED OF WIND DATA SOUND DIRECTION SPE KNOTS DEGREES (TN) KNO 002.4 271.9 11 600.7 269.5 269.1 599.0 271.9 11 597.4 270.5 11 597.4 270.5 11 598.7 269.1 12 598.7 269.1 12 598.7 269.1 12 598.0 256.0 22 577.6 225.7 12 577.6 225.7 22 577.6 225.7 22 577.6 225.7 22 577.6 225.7 22 577.6 225.7 22 577.6 225.7 22 576.3 225.7 22 576.3 225.7 22 576.3 225.7 22 576.3 225.7 22 576.3 225.7 22 576.3 225.7 22 576.1 225.8 22 556.1 225.8 22 556.1 225.8 22 556.1 225.8 22 556.1 225.8 22 556.1 225.8 22 556.1 225.8 22 556.1 225.8 22 556.1 225.8 22 556.1 225.8 22	STATION ALTIT 24 AUG. 77 ASCENSION NO.	STATION ALTITUDE 3951.40 FE 24 AUG. 77 0915 HRS ASCENSION NO. 73	51.40 FEET 0915 HRS MDT	ET MSL MDT	100	UPPER AIR DAT 2360050073 APACHE TABLE VIII. (CO	73 (CONT)		GEODETI 32. 106.	GEODETIC COORDINATES 32.627UO LAT DEG 106.39352 LON DEG
PRESSURE   Temperature   Rel.Hum, Density   Speed   Pressure   Temperature   Rel.Hum, Density   Speed   Pressure   Pres										
MILLIBARS DEGREES CENTIGRADE METER KNOTS DEGREFS(TA) KNOTS REFED CASES CENTIGRADE METER KNOTS DEGREFS(TA) KNOTS REFED CASES. CAS	GEOMETRIC	PRESSURE	E	W		DENSITY		WIND DA	TA	INDEX
MILLIBARS DEGREES CENTIGRADE   METER   KNOTS DEGREFES(TA) KNOTS REFERENCE   METER   KNOTS DEGREFES(TA) KNOTS REFERENCE   METER   KNOTS DEGREFES(TA) KNOTS REFERENCE   METER	ALTITUDE			DEMPOINT	PERCENT	GM/CUBIC	SOUND	DIRECTION	SPEED	90E
280.6       -34.1       -47.9       22.9       408.8       002.4       271.9       13.5         262.8       -35.4       -48.7       22.9       402.2       600.7       269.5       13.6         262.8       -36.7       -69.5       16.2**       369.4       570.9       260.5       14.0         262.8       -39.5       -69.1       -50.4       25.6       16.2**       16.2	MSL FEET	MILLIBARS		CENTIGRADE		METER	KNOTS	DEGREES (TA)	KNOTS	REFRACTION
274.5       -13.4       -48.7       22.9       400.2       260.5       13.6         268.6       -36.7       -40.5       28.8       399.0       260.5       14.0         262.8       -36.7       25.6       30.4       597.0       260.5       14.0         267.0       -36.7       -55.5       16.2**       383.2       595.5       268.7       14.0         257.0       -41.0       -69.1       3.1**       377.2       591.9       268.7       15.1         245.6       -42.3       -60.4       377.2       591.9       249.4       16.9         240.0       -43.0       -69.1       3.1**       377.7       591.9       249.4       16.9         240.0       -44.8       377.7       591.9       249.4       18.2         229.2       -40.0       351.4       581.1       252.5       19.3         218.8       -40.4       351.2       581.0       255.7       19.3         218.8       -40.4       351.2       582.4       256.9       20.2         218.8       -40.4       351.2       582.4       256.9       20.2         218.8       -40.4       351.2       582.4	33500.0	280.6	-34.1	-47.9	22.9		002.4			1.030092
268.6       -36.7       -9.5       24.8       395.7       597.4       270.5       14.0         267.0       -39.1       -50.4       25.8       380.4       277.4       270.5       14.0         257.0       -39.5       -69.1       3.1**       377.2       597.4       270.5       14.7         240.0       -42.3       -69.1       3.1**       377.2       593.5       268.7       16.9         240.0       -43.0       -69.1       3.1**       377.2       593.5       268.7       16.9         240.0       -44.8       3.1**       377.2       593.5       264.6       16.9         234.5       -44.8       377.2       593.5       264.6       16.9         223.2       -44.9       357.7       588.4       16.9         218.8       -46.0       357.7       588.4       26.9       10.3         218.8       -46.0       357.7       588.4       26.9       20.6         218.8       -49.4       333.3       582.4       256.0       20.6         218.9       -50.9       357.2       254.6       21.2         199.5       -55.4       360.8       256.0       20.9	34000.0	274.5	-35.4	L.84-	23.9	402.2	4.009	5.692	13.6	1.000090
262.8     -38.1     -50.4     25.8     383.2     597.5     268.7     18.7       251.0     -39.5     -55.5     16.244     383.2     595.5     268.7     15.1       251.3     -41.0     -69.1     3.144     370.7     591.5     265.3     15.6       240.0     -44.8     370.7     591.5     264.6     16.9       240.0     -44.8     370.7     591.3     249.4     18.2       229.2     -44.8     370.7     591.3     249.4     18.2       229.2     -44.8     351.4     588.7     249.4     18.2       218.8     -49.7     351.4     588.7     249.4     18.2       218.8     -49.7     351.4     588.4     256.9     20.2       218.9     -49.7     333.3     582.4     256.9     20.2       218.9     -52.1     373.5     582.4     256.9     20.2       218.9     -52.1     373.5     582.4     256.9     20.2       218.9     -52.1     373.5     582.4     256.9     20.2       190.0     -55.4     373.5     582.4     256.9     20.3       180.4     -56.4     372.2     254.9     21.3       180.4	34500.0	268.6	-36.7	-49.5	24.8	95.	599.0	269.1	14.0	1.000089
257.0       -39.5       -55.5       16.24**       383.2       595.5       268.7       15.1         245.6       -42.3       -69.1       3.14*       377.2       593.5       268.7       15.6         240.0       -44.3       -69.1       3.14*       377.2       594.6       16.9         240.0       -44.8       377.7       588.7       248.6       16.9         223.9       -44.8       357.7       588.7       248.9       19.1         223.9       -44.0       357.2       584.0       252.5       19.3         216.8       -46.0       339.2       584.0       256.9       20.2         216.9       -46.0       339.2       584.0       256.9       20.2         216.9       -46.0       339.2       584.0       256.9       20.2         216.9       -46.0       337.3       582.4       256.9       20.2         216.9       -46.0       321.8       377.2       256.9       20.0         199.6       -52.4       30.8       256.0       20.0         180.9       -55.4       30.8       256.0       20.0         180.9       -55.4       256.0       20.0 <td>35000 "0</td> <td>262.8</td> <td>-38.1</td> <td>-50.4</td> <td>25.8</td> <td>389.4</td> <td>597.4</td> <td>270.5</td> <td>14.7</td> <td></td>	35000 "0	262.8	-38.1	-50.4	25.8	389.4	597.4	270.5	14.7	
255.3       -41.0       -69.1       3.1**       377.2       593.5       265.3       15.6         245.6       -42.3       3.1**       377.7       591.9       254.6       16.9         246.0       -42.3       36.4       591.9       254.6       16.9         236.5       -46.0       357.7       588.7       248.9       19.1         229.2       -46.0       357.3       585.6       255.7       19.3         215.8       -49.4       358.4       256.9       20.2         215.8       -49.7       333.3       582.4       256.9       20.2         215.8       -49.7       357.5       580.8       256.9       20.2         215.8       -52.1       333.3       582.4       256.9       20.2         216.9       -50.9       357.5       580.8       26.9       20.0         194.0       -50.9       357.5       580.8       26.9       20.0         196.0       -55.4       309.9       576.3       259.7       20.9         190.0       -55.4       309.9       576.3       26.9       21.3         190.0       -56.4       26.4       26.0       21.3	35500.0	257.0	-39.5	-55.5	16.2**	383.2	595.5	7.897	15.1	1.000086
245.6       -42.3       370.7       591.9       254.6       16.9         240.0       -43.6       34.2       590.3       249.4       18.2         234.5       -40.0       351.4       581.1       252.5       19.1         223.9       -47.2       351.4       587.1       252.5       19.3         218.8       -49.7       351.4       585.6       255.7       19.3         218.8       -49.7       339.2       584.0       256.9       20.2         206.9       337.2       580.8       256.9       20.2         206.9       337.2       580.8       256.9       20.0         206.9       351.8       570.2       256.9       20.0         199.6       -52.1       316.1       577.6       256.9       20.0         199.6       -53.3       316.1       577.6       256.9       20.0         180.9       -54.3       316.1       577.6       256.9       20.0         180.9       -55.4       570.6       260.6       20.0         180.9       -56.4       20.0       20.0         180.9       -57.4       265.0       20.0         180.9       -57.	300000	251.3	-41.0	-69-1	•	377.2	593.5	265.3	15.6	
240.0       -43.0       364.2       590.3       249.4       18.2         2234.5       -44.8       357.7       588.7       248.9       19.1         223.9       -44.8       351.4       587.1       248.9       19.1         223.9       -40.0       335.4       585.6       255.7       19.3         215.8       -49.7       339.2       584.0       256.9       20.2         216.8       -49.7       333.3       582.4       256.9       20.2         204.2       -50.9       331.8       579.2       256.9       20.2         204.2       -52.1       316.1       577.6       254.9       20.9         199.5       -53.3       316.1       577.6       254.9       20.9         190.0       -55.4       309.9       576.3       20.9       20.9         190.0       -55.4       20.9       20.9       20.9         180.4       -56.4       570.3       265.0       20.9         176.5       -56.4       570.3       265.0       20.9         176.5       -56.4       570.6       266.9       20.9         166.1       -60.5       266.9       20.9       20	36500.0	745.6	-42.3			370.7	591.9	254.6	16.9	.00008
234.5       -44.8       357.7       588.7       248.9       19.1         229.2       -46.0       351.4       587.1       252.5       19.3         223.9       -46.0       351.4       587.1       255.5       19.3         213.8       -48.4       256.9       20.2       19.3         213.8       -49.7       333.3       582.4       256.9       20.2         204.2       -52.1       327.5       580.8       256.9       20.2         204.2       -52.1       327.5       580.8       256.0       20.2         199.6       -52.1       316.1       577.6       254.9       21.3         199.6       -56.4       303.8       574.3       254.9       21.3         190.0       -55.4       303.8       574.3       254.9       21.3         180.9       -57.4       260.0       20.9       21.3         180.9       -58.4       270.4       270.8       260.9       21.3         180.9       -58.4       570.8       260.9       21.3         160.1       -60.5       270.9       270.8       260.9       20.9         160.1       -60.5       270.9       2	37000.0	240.0	-43.0			364.2	590.3	4.645	18.2	.0000
229.2       -46.0       351.4       587.1       252.5       19.3         223.9       -47.2       345.3       585.6       255.7       19.7         213.8       -49.7       333.2       584.0       256.9       20.0         213.8       -49.7       333.2       580.8       256.9       20.0         204.2       -52.1       327.5       580.8       256.0       20.0         204.2       -52.1       321.8       579.2       254.9       20.0         199.5       -53.3       316.1       577.6       254.9       20.0         194.6       -55.4       309.9       574.9       254.9       20.0         185.4       -56.4       577.6       254.9       20.0         180.9       -57.4       577.6       254.9       20.0         180.9       -57.4       577.6       254.9       20.0         180.9       -57.4       573.6       265.7       20.0         180.9       -57.4       572.2       265.7       21.3         160.1       -60.5       260.9       20.0       21.3         160.1       -60.5       260.0       21.3       21.3         160.	37500.0	234.5	-+4.8			357.7	588.7	248.9	19.1	
223.9     -47.2       218.8     -48.4       218.8     -48.4       218.8     -48.4       206.9     339.2       206.9     20.6       206.9     20.6       206.9     20.6       206.9     20.6       206.9     20.6       206.9     20.6       199.5     -53.3       199.6     -55.4       190.0     -55.4       180.4     -56.4       180.9     576.3       20.9     21.2       180.9     -57.4       180.9     576.3       20.9     21.3       180.9     -57.4       20.9     20.9       160.1     -60.5       160.1     -60.5       160.1     -60.5       160.1     -60.5       160.1     -60.6       160.1     -60.5       160.1     -60.5       160.1     -60.5       160.1     -60.5       160.1     -60.5       160.1     -60.5       160.1     -60.5       160.1     -60.5       160.1     -60.5       160.1     -60.5       160.1     -60.5       160.1     -60.5 <td>34000.0</td> <td>256.5</td> <td>0.04-</td> <td></td> <td></td> <td>351.4</td> <td>587.1</td> <td></td> <td>19.3</td> <td></td>	34000.0	256.5	0.04-			351.4	587.1		19.3	
218.6       -48.4       339.2       584.0       256.9       20.2         213.8       -49.7       333.3       582.4       256.9       20.6         2046.9       -50.9       327.5       580.8       256.0       20.9         2040.2       -52.1       316.1       577.6       254.6       21.2         199.6       -54.3       309.9       576.3       259.7       20.9         190.0       -55.4       303.8       574.9       263.5       20.9         190.0       -55.4       303.8       574.9       263.5       20.9         180.9       -56.4       576.3       263.5       20.9         180.9       -57.4       292.1       572.2       20.9         170.5       -58.4       576.6       266.6       21.3         170.5       -58.4       570.8       266.6       21.3         166.1       -60.5       275.4       566.6       22.2         166.1       -60.5       275.4       566.7       22.2         166.1       -62.6       275.4       566.7       265.0       22.7         166.1       -62.6       265.0       265.0       265.0       22.2 <td>38500.0</td> <td>223.9</td> <td>-47.2</td> <td></td> <td></td> <td>345.3</td> <td>585.6</td> <td>255.7</td> <td>19.7</td> <td></td>	38500.0	223.9	-47.2			345.3	585.6	255.7	19.7	
213.8       -49.7       333.3       582.4       256.9       20.6         2046.9       -50.9       327.5       580.8       256.0       20.9         204.2       -52.1       31.8       579.2       254.6       21.2         199.5       -54.3       316.1       577.6       254.9       21.3         194.6       -56.4       309.9       576.3       259.7       20.9         185.4       -56.4       207.9       267.9       20.9         186.9       -56.4       20.9       20.9       20.9         186.9       -56.4       20.9       20.9       20.9         186.9       -56.4       20.9       20.9       20.9         176.5       -58.4       20.9       20.9       20.9         176.5       -58.4       20.9       20.9       20.9         164.1       -60.5       20.9       20.9       20.9         164.1       -61.5       20.9       20.9       20.9         164.1       -61.5       20.9       20.9       20.9         164.1       -62.0       20.9       20.9       20.9         164.1       -62.0       20.9       20.9       2	39000.0	216.8	148.4			339.2	584.0	556.9	20.2	1.000076
206.9       327.5       580.8       256.0       20.9         204.2       -52.1       321.8       579.2       254.6       21.2         199.5       -53.3       316.1       577.6       254.9       21.2         194.6       -54.3       309.9       576.3       259.7       20.9         190.0       -55.4       309.9       576.3       259.7       20.9         185.4       -56.4       292.1       273.6       265.5       20.9         186.9       -57.4       292.1       572.2       265.3       21.1         176.5       -58.4       286.4       572.2       265.3       21.3         176.5       -58.4       286.4       570.8       264.6       21.5         164.1       -60.5       275.4       564.6       22.2         160.1       -62.6       275.4       566.6       23.2         160.1       -62.6       275.4       566.6       23.2         160.1       -62.6       25.6       265.7       22.2         160.1       -62.6       25.6       265.0       23.0         160.1       -62.6       25.6       265.0       265.0         160.	39500.0	213.8	1-64-			333.3	582.4	256.9	20.6	1.000074
204.2       -52.1       321.8       579.2       254.6       21.2         199.5       -53.3       316.1       577.6       254.9       21.3         194.6       -54.3       309.9       576.3       259.7       20.9         190.0       -55.4       309.9       576.3       259.7       20.9         180.0       -55.4       20.9       20.9       20.9       20.9         180.0       -55.4       20.0       20.9       20.9       20.9         180.0       -56.4       570.6       265.3       21.6       21.6       21.6       21.6       22.2         176.1       -60.5       286.4       570.6       265.7       22.2       21.6       22.2       21.6       22.2       21.6       22.2       22.2       21.6       22.2	400000	508.9	-50.9			327.5	580.8	256.0	20.9	
199.5       -53.3       316.1       577.6       254.9       21.3       1         194.6       -54.3       309.9       576.3       259.7       20.9       1         190.0       -55.4       303.8       574.9       263.5       20.9       1         185.4       -56.4       297.9       573.6       265.6       21.1       1         186.9       -57.4       292.1       572.2       265.3       21.3       1         176.5       -58.4       280.9       570.8       265.3       21.3       1         176.5       -58.4       280.9       569.5       265.7       22.2       1         164.1       -60.5       275.4       568.1       265.6       22.7       1         164.1       -62.6       275.4       568.1       265.0       23.6       23.6         166.1       -62.6       270.1       566.4       265.0       23.6       23.6         166.2       -63.6       264.0       258.8       24.1       258.6       265.0       23.6         148.8       -65.7       266.0       258.6       262.0       258.0       24.0       262.0         148.8       -65.7 </td <td>40200.0</td> <td>204.2</td> <td>-52.1</td> <td></td> <td></td> <td>321.8</td> <td>519.2</td> <td>254.6</td> <td>21.2</td> <td></td>	40200.0	204.2	-52.1			321.8	519.2	254.6	21.2	
194.6       -54.3       259.7       20.9         190.0       -55.4       303.8       574.9       263.5       20.9         185.4       -56.4       297.9       573.6       266.6       21.1         180.9       -57.4       297.9       573.6       266.6       21.1         180.9       -57.4       292.1       572.2       265.3       21.3         176.5       -58.4       580.4       504.6       21.6       21.6         172.3       -59.5       280.9       569.5       265.7       22.2         166.1       -60.5       275.4       568.1       265.6       22.7         164.1       -61.5       275.4       568.7       265.6       22.7         166.1       -62.6       270.1       566.7       265.0       23.6         156.2       -64.0       256.4       265.0       23.6       148.8         166.1       266.7       265.0       253.5       24.0         148.8       -65.7       246.0       245.8       24.0         148.6       -66.8       240.1       259.6       242.8       24.0         144.4       -66.8       240.1       258.0	41000.0	199.5	-53.3			316.1	577.6	254.9	21.3	
190.0       -55.4       303.8       574.9       263.5       20.9         185.4       -56.4       -56.4       297.9       573.6       266.6       21.1         180.9       -57.4       292.1       572.2       265.3       21.3         176.5       -58.4       286.4       570.8       266.6       21.6         172.3       -59.5       286.4       569.5       265.7       22.2         166.1       -60.5       275.4       568.1       265.6       22.7         166.1       -61.5       270.1       566.7       265.6       22.7         166.1       -62.6       270.1       566.7       265.0       23.0         156.2       -64.0       258.8       24.0       258.6         156.2       -64.0       258.8       24.0       24.0         148.8       -65.7       249.8       561.1       248.1       24.0         145.0       -66.8       240.0       237.6       24.8       24.0	41500.0	194.6	-54.3			309.9	576.3	259.7	20.9	1.000069
185.4       -56.4       297.9       573.6       266.6       21.1       1         180.9       -57.4       292.1       572.2       265.3       21.3       1         176.5       -58.4       286.4       570.8       264.6       21.6       1         172.3       -59.5       280.9       569.5       265.7       22.2       1         166.1       -60.5       275.4       568.1       265.6       22.7       1         166.1       -62.6       270.1       566.7       265.6       22.7       1         156.2       -63.6       26.0       23.0       23.0       1         156.2       -64.0       258.8       24.0       258.6         148.8       -65.7       264.0       258.8       24.0         148.6       -65.7       249.8       561.1       248.1       24.0         145.0       -66.8       240.1       259.0       242.8       24.4         141.4       -68.0       240.1       559.0       242.8       24.4	42000.0	190.0	-55.4			303.8	574.9	263.5	20.9	1.000068
180.9     -57.4       176.5     -58.4     286.4     570.8     264.6     21.6       172.3     -59.5     280.9     569.5     265.7     22.2       166.1     -60.5     275.4     568.1     265.6     22.7       164.1     -61.5     275.4     568.1     265.6     22.7       164.1     -62.6     270.1     566.7     265.0     23.2       156.2     -63.6     270.1     566.7     265.0     23.6       156.2     -64.0     258.8     24.1       152.5     -64.0     258.8     24.1       148.8     -65.7     249.8     561.1     248.1       145.0     -66.8     24.9     240.1     242.8       141.4     -68.0     237.6     24.8     24.4	42500.0	185.4	-56.4			297.9	573.6	566.6	21.1	
176.5       -58.4       21.6       1         172.3       -59.5       28.4       586.4       569.5       265.7       22.2         168.1       -60.5       275.4       568.1       265.6       22.7       1         164.1       -61.5       270.1       566.7       265.6       22.7       1         166.1       -62.6       270.1       566.7       265.0       23.2       1         156.2       -63.6       259.0       259.0       258.8       24.1       1         152.5       -64.6       259.7       562.0       253.5       24.0       1         148.8       -65.7       249.8       561.1       248.1       24.1       1         145.0       -66.8       240.0       259.6       242.8       24.4       1         141.4       -66.8       240.1       559.6       242.8       24.4       1	43000.0	180.9	-57.4			292.1	572.2	265.3	21.3	
172.3       -59.5       280.9       569.5       265.7       22.2       1         168.1       -60.5       275.4       568.1       265.6       22.7       1         164.1       -62.6       270.1       566.7       265.6       23.2       1         156.2       -63.6       25.6       25.6       23.6       1         152.5       -64.0       258.8       24.1       1         148.8       -65.7       249.0       253.5       24.0         145.0       -66.8       249.1       248.1       24.1         141.4       -68.0       240.1       258.0       24.4	43500.0	176.5	-58.4			286.4	570.8	8.493	21.6	1.000064
168.1     -60.5       164.1     -61.5       164.1     -61.5       160.1     -62.6       156.2     -63.6       152.5     -64.0       148.8     -65.7       148.6     -66.8       141.4     -68.0	44000.0	172.3	-58.5			280.9	569.5	265.7	22.2	1.000063
164.1     -61.5       160.1     -62.6       156.2     -63.6       156.2     -63.6       152.5     -64.0       259.7     564.0       259.7     564.0       258.8     24.1       148.8     -65.7       145.0     -66.8       141.4     -68.0       141.4     -68.0	44500.0	168.1	-60.5			275.4	568.1	265.6	22.7	1,000061
160.1     -62.6     23.6       156.2     -63.6     259.7     564.0     258.8     24.1       152.5     -64.6     258.8     24.1     1       148.8     -65.7     249.8     561.1     248.1     24.0       145.0     -66.8     24.9     240.1     242.8     24.4       141.4     -68.0     237.6     24.8     1	45000-0	164.1	-61.5			270.1	566.7	265.0	23.2	
156.2       -63.6       254.0       258.8       24.1       1         152.5       -64.6       254.0       253.5       24.0       1         148.8       -65.7       249.8       561.1       248.1       24.1       1         145.0       -66.8       24.9       249.8       559.6       242.8       24.4       1         141.4       -68.0       237.6       24.8       1	45500.0	160.1	-62.6			264.9	565.4	262.0	23.6	
152.5       -64.6       254.7       562.6       253.5       24.0       1         148.8       -65.7       249.8       561.1       248.1       24.1       1         145.0       -66.8       24.9       559.6       242.8       24.4       1         141.4       -68.0       237.6       24.8       1	4,6000.0	156.2	-63.6			259.7	564.0	258.8	24.1	
148.8     -65.7       145.0     -66.8       141.4     -68.0       240.1     559.6       240.1     559.6       240.1     559.6       240.4     237.6       240.8     237.6       240.8     1	4.500.0	152.5	9.49-			254.7	562.6	53	24.0	
145.0 -66.8 24.4 1 141.4 -68.0 240.1 558.0 237.6 24.8 1	4 7000.0	148.8	1-69-			49.	561.1	248.1	24.1	1.030056
141.4 -68.0 240.1 558.0 237.6 24.8 1	47500.0	145.0	-66.8			4 4	559.6	242.8		1.000055
	40000.0	41				40.	558.0	7.	•	1,000053

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3951.40 FEET MSL 2360050073 24 AUG. 77 ASCENSION NO. 73 O915 HRS MDT ASCENSION NO. 73 O915 HRS MDT TABLE VIII. (CONT) TABLE VIII. (CONT) TABLE VIII. (CONT) 106.3 ALTITUDE ASOO.0 137.8 -69.1 49500.0 134.3 -70.0 49500.0 134.3 -70.0 49500.0 124.2 -70.9 50000.0 124.2 -72.7 50000.0 124.2 -72.7 51500.0 118.0 -74.5 51500.0 118.0 -74.5	GEODETIC COORDINATES	39352 LON ULG	INDEX	90	REFRACTION	1.000052	1.000051	1.000050	1.000049	1.000048	1.000047	1.00004
UPPER AIR DATA 2360050073     APACHE     TABLE VIII. (CONT)  RE REL.HUM. DENSITY SPEED OF OINT PERCENT GM/CUBIC SOUND DIRE RETER KNOTS DEGRE 235.4 556.5 220.3 555.3 225.9 554.0 220.6 552.8 211.3 550.3 211.3 550.3 206.9 549.1	GEODETIC 32.0	106	41	SPEED	KNOTS	25.5	25.9	22.5	19.1	14.8		
RE OINT GRADE			MIND DA	DIRECTION	DEGREES (TN)	241.2	8.443	249.8	555.9	262.9		
RE OINT GRADE	ATA 3	(CONT.)	PEED OF	SOIJND	KNOTS		555.3	554.0				
RE OINT GRADE	PPER AIR D 236005007 APACHE	ABLE VIII. (	DENSITY S	GM/CUBIC	METER	235.4	230.3	225.4	220.6	215.9	211.3	206.9
RE OINT GRADE	2	H	REL.HUM.	PERCENT								
STATION ALTITUDE 3951.40 FE 24 AUG. 77	ET MSL MDT											
STATION ALTITUDE 395 24 AUG. 77 ASCENSION NO. 73 GEOMETRIC PRESSURE ALTITUDE MSL FEET MILLIBARS 48500.0 137.8 49500.0 137.8 49500.0 137.8 50000.0 127.5 51000.0 127.5 51500.0 121.1	1.40 FE		TEM	AIR	DEGREES	-69.1	-70.0	-10.9	-71.8	-72.7	-73.6	-74.5
STATION AL 24 AUG. 77 ASCENSION GEOMETRIC ALTITUDE MSL FEET 48500.0 49500.0 49500.0 50500.0 51500.0	TITUDE 395				MILLIBARS	137.8	134.3	130.9	127.5	124.2	121.1	118.0
	STATION AL 24 AUG. 77	ASCENSION	GEOMETRIC	ALTITUDE		48500.0	49000.0	49500.0	5000000	50500.0	51000.0	51500.0

MANUALORY LEVELS	2360050073	APACHE	TABLE IX.
ZAL		7	TA

PRESSURE 6	PRESSURE GEOPOTENTIAL		TEMPERATURE	REL.HUM.	WIND DATA	ATA
		AIR	DEMPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES	CENTIGRADE		DEGREES(TN)	KNOTS
850.0	4997.	23.0	13.5	55.		6.9
800.0	6732.	22.3	9.5	. ##		5.0
750.0	8561.	18.3	7.0	48.		1.0
700.0	10488.	13.9	4.2	52.		2.7
0.059	12523.	8.9	1.0	58.		4.9
0.009	14680.	3.6	-2.1	63.		8.8
550.0	16976.	-2.2	-6.1	74.		8.8
500.0	19441.	1-0-	-12.3	. 49		11.5
450.0	22122.	-10.5	-25.7	27.		18.1
400.0	25071.	-15.0	-29.4	.82		13.8
350.0	28339.	-22.2	-37.6	23.		11.7
300.0	32000.	-30.0	-45.6	70.		14.4
250.0	36162.	-41.4				16.1
200.0	41005.	-53.2			255.7	21.2
175.0	43792.	-58.8				22.1
150.0	46919.	-65.3				24.1
125.0	50493.	-72.5				13.8

AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

6FODE TIC COORDINATES 32-88862 LAT DEG 106-09965 LON DEG	RFL.HUP. NI PERCENT RADE	7 42.0 5 46.0		D • 9 4 4 4				2 16.C U 23.U	8 19.U						
SIGNIFICANI LEVEL 236UO10551 HOLLOMAN TABLE X.	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	25.5 11.7 24.9 12.5	25.3 11.5	14.9 3.4 5.2 -2.4				-23.5 -42.2 -30.7 -45.0	-35.5 -50.8 -41.0	-48.6 -52.0	-62.6	-72.4	-13.1	-70.2	200
MSL	URE GECMETRIC ALTITUDE ARS MSL FEET	4126.6	5012.5	10521.1	15177.2	19485.2	25111.2	28997.2	34138.5	39426.0	45234.2	51399.8	52119.7	53384.2	7.1176
STATION ALTITUDE 4126.59 FEET 24 AUG. 77 ASCENSION NO. 591 1000 HRS MDT	PRESSURE "ILL IBARS	876.4	850.0	6.067	589.8	500.0	400.0	341.0 340.0	273.6	215.4	163.0	119.2	114.8	107.5	

CTATTON A TITLING A104 GO CELT ACT	1210010	Tropic Contractor
SIMILON ALILIDUE TICO.37 FEEL MSL	2,360010341	ST ANTING CONTINA IES
0000	44.01.00	
CA AUG. 1	HULUFAR	32.8E865 LAI UEG
ASCENSION NO. DAI	TABLE XI	106.09965 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILL IBARS	TEMP AIR DEGREES	PERATURE DEMPO INT CENTIGRADE	REL.HUM. PERCENT	DENSITY STANCHERC METER	SOUND KNOTS	WIND DATA DIRECTION S DEGREES(IN) K	SPEED KNOTS	INDEX OF REFRACTION
4120.6	4.913	25.5	11.7	44.0	1016.2	6.45.3	160.0	5.1	1.000285
4530.0	905.2	54.9	12.4	45.6	1004.8	674.7			1.030285
200000	4.058	25.3	11.5	42.1	9.986	675.1			1.000278
5500.0	435.7	24.7	10.3	40.5	971.8	674.3			1,000270
9-0009	821.3	24.1	9.1	38.4	957.3	673.5			1.000263
o500°n	807.1	23.5	1.9	36.6	942.9	072.7			1.000250
0.0001	193.1	55.9	6.7	35.1	926.9	6.119			1.000249
1500.0	7.611	21.8	6.3	36.7	916.2	0.010	182.2	3.2	1.000240
D •0009	165.5	50.6	5.9	38.2	903.6	669.3	140.7	1.7	1.000242
9500.0	152.0	19.5	5.5	39.8	891.2	0.890	228.9	1.	1,900239
0.0004	138.8	16.4	5.0	41.3	0.278	9.999	586.4	. 8	1.000235
9500.0	125.6	17.2	4.5	42.8	867.0	665.3	295.8	6.	1,000231
100001	113.1	16.1	J. 4	. 1.11	855.1	0.499	270.1		1.000227
10500.0	5.007	14.9	3.4	45.9	843.5	9.799	225.1	1.1	1,930224
11000.0	8.190	13.7	2.7	47.5	832.0	661.1	206.3	5.4	1.000220
11500.0	0.42.3	12.4	2.0	49.1	820.7	9.659	202.4	3.6	1,000210
12000-0	663.1	11.1	1.3	50.7	805.5	658.1	202.3	4.7	1.000212
12500.0	651.3	9.8	• 5	52.3	798.5	9.969	201.3	5.9	1,000206
15000.0	639.2	4.5	3	53.9	787.7	655.0	199.7	7.0	1.000204
13500.0	9-170	7.3	-1.1	55.4	117.1	053.5	199.9	8 . 2	1,000233
14000-0	016.2	7.0	-1.9	57.0	166.6	651.9	201.4	9.5	1.000197
14500.0	0.500	4.7	-3.4	55.3	756.2	050.4	204.8	10.1	1,000192
15000.0	543.7	₫•₽	-6.3	48.4	145.8	048.0	211.4	6.6	1.000185
15500.0	282.6	2.3	-1.6	47.7	735.1	047.3	217.9	9.5	1,0001,1
1.0000-0	571.6	1.1	0.8-	50.3	724.4	645.9	55 422	8.8	1.000176
10500.0	9.000	1	-8.5	52.9	715.8	6.440	233.6	8.5	1,000175
17000.0	550.5	-1.3	0.6-	55.5	703.5	643.0	643.6	4.7	1.000173
17503.0	239.8	-2.5	9.6-	58.1	693.3	041.6	253.7	4.6	1,900173
10000.0	524.6	-3.7	-10.2	66.7	663.3	2.049	202.2	10.6	1.000167
18500.0	219.5	1.4-7	-11.5	54.8	612.9	638.4	7.89.0	15.0	1,000163

WIND DATA INVALID DUE TO MISSING RAL AZIMUTH AND ELEVATION ANGLES. ×

GFODETIC COORDINATES 32-88665 LAT DEG 106-09965 LON DEG	INDEX	96	REFRACTION	1.000159	1.000154	1,000146	1.000144	1,000142	1.000139	1, 000131	1.000135	1,000133	1.000130	1.00012	1.000126	1,000124	1.000122	1,000119	1.000117	1.000115	1-000113	1,000111	1.000109	1,900107	1-000105	1.930195	1.000102	1,930133	1.000096	1.000001	1.000095	1,000093	1.000092
6F 0DE T 10	TA	SPEED	KNOTS	13.4	14.5	15.7	16.2	16.7	17.8	19.0		19.6	17.7	15.9	14.6	13.5	13.6	13.6	15.2	12.8	12.6	12.5	13.0	13.4	13.2	13.4	14.0	14.6	15.0	15.4	15.8	16.1	16.0
	WIND DATA	DIRECTION	DEGREES(TN)	273.6	3.613	285.0	287.6	289.7	3.985	283.6	279.0	474.7	6.013	266.3	5.993	6.902	667.3	266.7	663.3	261.3	₹95.6	79497	5.67.6	4.892	2. 193	4.462	250.3	746.6	5.053	4.462	5.957	258.3	162.4
DAIA 591 (CONT)	SPEED OF	ON NO S	KNOTS	037.0	636.6	636.1	635.1	034.1	633.2	032.2	631.2	030.2	029.2		621.2		625.0	053.0	622.3	620.7	619.6	610.3	616.9		-77		611.2	1.600	608.2	606.7	605.3		4.209
UPPER AIR DA 2360010591 HOLLOMAN TABLE XI. (CO)	DENSITY	GM/ CUBIC	METER	662.1	651.5	640.3	625.7		6.809	598 • 8	588.6	579.1	564.5	563.1	550.8	541.7	532.9	524 .3	515.9	507.6	T. 665	491 .4	463.5	7		9	452.9	5	3 8	2	÷	416.8	405.8
3	REL.HUM.	PERCENT		52.3	45.1	19.1	20.3	21.5	55.6	23.8	54.9	26.1	27.3	28.4	54.6	30.7	25.5	27.6	25.6	23.7	21.8	19.8	17.9	16.0	17.2	18.3	14.5	50.02	21.8	23.0	22.1	-	20.2
MDT MSL	PERATURE	DEMPOINT	CENTIGRADE	-13.7	-16.2	-26.3	-26.4	-20.5	-26.0	-26.8	-27.0	-27.2	-27 .4	-27.7	-28°C	-28.3	-29.6	-31.3	-33.0	-34.7	-36.5	-38.3	-40.2	-45.4	-42.5	-45.9	-43.4	-43.8	t. 11-	6.44-	-46.3	-47.6	0.64-
	TEMP	AIR	DEGREES	-5.5	-6.3	1.0-	-7.5	-8.5	-4.2	-10.0	-10.8	-11.0	-12,5	-13.3	-14.1	-14.9	-15.9	-17.0	-16.1	-19.2	-20.3	-21.3	-24.4	-23.5	-24.7	-25.9	-21.1	-28.3	-24.5	-30.1	-31.8	2	-34.1
TITUDE 412	PRESSURE		MILL IPAKS	5.400	T. 564	490.0	480.4	471.0	461.7	452.6	443.7	435.0	450 4	418.0	406.8	401.8	393.7	385.7	317.8	370.1	302.6	355.3	348.0	341.0	333.8	956.8	320.0	513.2	306.7	30005	293.8		281.3
STATION ALTITUDE 4126.59 FEET 24 AUG. 77 1000 HRS MDT ASCENSION NO. 591	GEOMETRIC		HSL FEET	19000.0	15500.0	23000.3	20500.0	21000.0	21500.0	22000,0	22500.6	23000.0	23500.0	24000°n	24500.0	25000-0	25500-6	26000-0	26500-0	27000.0	27500.0	28000.0	28500.0	29000.0	24500-0	30000.0	30500.0	31000.0	31500.0	32000.0	32500-0	33000.0	33500.0

SPEED OF WIND DATA INDEX SOUND SPEED OF KNOTS REFRACTION OF SOUND SPEED SPE	SIATION ALTITUDE 4126.59 FEET WSL	E 412	6.59 FE	ET *SL		UPPER AIR DAI 2360010591 HOLLOMAN	0 A T A 5.1		GF ONE TI	GFONETIC COORDINATES
TEMPERATURE REL.HUW. GENSITY SPEED OF WIND DATA  AIR DEMPOINT PERCENT GACCHIC SOUND DIRECTION SPEED  -35.2 -50.4 19.3 402.9 0.11.0 C67.4 15.8  -36.5 -53.2 15.6** 396.3 599.6 269.6 15.8  -37.2 -62.6 6.3** 369.8 597.6 269.6 15.8  -41.8 -67.2 10.9** 370.8 592.6 269.4 17.1  -41.8 -62.6 6.3** 370.8 592.6 263.3 269.6  -41.8 -73.2 1.0** 370.8 592.6 263.3 269.6  -45.0 -41.8 592.6 263.3 269.6 25.1  -45.0 -41.8 592.6 263.3 269.6 25.1  -45.0 -41.8 592.6 263.3 269.6 25.1  -45.0 -41.8 592.6 263.3 269.6 25.1  -45.0 -41.8 592.6 269.6 269.6 25.1  -55.0 -41.8 592.6 269.6 269.6 269.6  -55.0 -41.8 592.6 269.6 269.6 269.6  -57.1 -57.2 592.8 572.6 265.9 269.6  -57.2 -59.4 526.9 260.9 260.9 260.9 260.9  -64.2 -66.2 260.9 265.8 265.9 260.9 260.9  -64.2 -66.2 260.9 263.1 264.0 27.9  -64.2 -66.2 260.9 263.1 264.0 27.9  -64.2 -66.2 260.9 263.1 264.0 27.9  -64.2 -66.3 26.1 264.0 26.1  -64.2 -66.2 26.0 27.9 264.0 27.9  -64.2 -66.2 26.0 27.9 26.0 27.9  -64.2 -66.2 26.0 27.9 26.1 27.9 26.0  -64.2 -66.2 26.0 27.9 26.1 27.9 26.0  -64.2 -66.2 26.0 27.9 26.1 27.9 26.0  -64.2 -66.2 26.0 27.9 26.1 27.9 26.0  -64.2 -66.2 26.0 27.9 26.1 27.9 26.0  -66.2 -66.3 27.9 26.0 27.9 26.1 27.9 26.0  -66.2 -66.3 27.9 26.0 26.0 27.9 26.0  -66.2 -66.3 27.9 26.0 27.9 26.0 27.9 26.0  -66.2 -66.3 27.9 26.0 27.9 26.1 27.9 26.0 27.9 27.9 27.9 27.9 27.9 27.9 27.9 27.9				100		TABLE XI. (CO	ONT)		106.	LON
-35.2 -50.4 19.3 402.9 001.0 207.4 15.8 -36.2 15.8 402.9 001.0 207.4 15.8 -37.2 10.9** 396.3 599.3 209.6 15.8 -40.5 -62.6 0.3** 353.5 595.9 268.4 17.1 17.1 17.1 17.1 17.1 17.1 17.1 17	25 =	SURE		PERATURE DEWPOINT CENTIGRAD	REL.HUM. PERCENT		SPEED OF SOUND KNOTS	WIND DA DIRECTION DEGREES(TN)	SPEFD KNOTS	INDEX OF REFRACTION
-36.5 -53.2 15.6** 396.3 599.3 269.6 15.8 -39.2 -30.5 -30.2 10.9** 369.3 599.0 270.7 15.9 -39.2 -62.6 6.3** 363.5 595.9 268.4 17.1 -40.5 -73.2 1.0** 377.2 594.2 265.5 18.6 -43.0 -44.2 -73.2 1.0** 377.2 594.2 265.5 20.5 -44.8 -45.0 -44.2 -45.0 -44.2 -45.0 -44.2 -45.0 -44.2 -45.0 -46.2 -45.0 -46.2 -46.4 -46	~	5.3	-35.2	4.06-	19.3		0.100	4.702	15.8	
- 55.0	0	5.5	-36.5	-53.2	15.6**	396.3	599.3	209.6	15.8	1-000089
-41.5	20	7.5	-39.2	-62.6	6.3**	363.5	595.9	268-4	17.1	1.000085
-41.8 -43.0 -43.0 -43.0 -43.0 -43.0 -43.0 -43.0 -44.2 -45.4 -45.4 -45.4 -45.4 -45.6 -45.0 -51.0 -52.0	25	1.9	-40.5	-13.2	1.0**	377.2	594.2	265.5	18.6	1, 30038 4
-43.0 -44.2 -44.2 -44.2 -44.2 -44.2 -44.2 -47.8	540	2.0	-41.8			370.8	592.6	263.3	20.5	1,000083
-44.2 -44.2 -44.2 -45.4 -45.4 -45.4 -47.8 -50.0 -51.0	7	1.0	-43.0			364.3		261.5	22.6	1,000041
-45.4 -45.4 -46.4 -47.8 -47.8 -48.9 -48.9 -48.9 -51.0 -51.0 -52.0 -53.3 -54.0 -54.0 -55.3 -54.0 -54.0 -55.3 -54.0 -54.0 -55.3 -54.0 -54.0 -55.3 -54.0 -54.0 -55.4 -54.0 -54.0 -54.0 -54.0 -54.0 -55.8 -54.0 -56.0	23	2.5	7. 44-			351.4	584.5	3.965	23.9	1.000080
-46.6 -47.8 -47.8 -47.8 -47.8 -47.8 -47.8 -47.8 -50.0 -51.0 -52.0 -52.0 -52.0 -52.0 -52.0 -52.0 -54.0 -52.0 -54.0 -55.0 -64.0 -6	22	6.6	145.4			351.7	587.9	256.1	24.9	1.000375
-47.8 -47.8 -48.9 -48.9 -48.9 -50.0 -50.0 -50.0 -51.0 -51.0 -52.0 -62.0	77	1.4	146.0			345.5	286.4	556.6	25.1	1.00001
-50.0 -51.0 -52.0 -52.0 -52.0 -52.0 -52.0 -52.0 -52.0 -52.0 -52.0 -52.0 -52.0 -54.0 -52.0 -54.0 -64.0 -64.0 -62.0 -62.0 -62.0 -63.1 -64.0 -63.1 -64.0 -6	21	9.6	-47.8			339.5	584.8	255.2	54.9	1.000076
-50.0 -51.0 -52.0 -52.0 -52.0 -52.0 -53.3 -54.0 -55.3 -54.0 -55.3 -54.0 -55.0 -54.0 -57.1 -57.1 -57.1 -58.4 -57.1 -58.4 -57.1 -62.2 -62.2 -62.2 -62.2 -62.2 -62.2 -62.2 -63.7 -64.9 -62.2 -62.2 -62.2 -62.2 -63.7 -64.9 -62.2 -62.0 -62.2 -63.7 -64.9 -62.2 -63.1 -64.2 -64.9 -6	7	4.1	48.9			333.5	583.3	256.2	24.7	1.000074
-51.0 -52.0	507	4.7	-50.0			327.3	585.0	258.5	24.4	1.000073
-55.3 -54.3 -55.8 -54.4 -55.8 -57.1 -55.8 -57.1	204	æ -	-51.0			321.2	580.7	260.9	24.2	1.000072
303.8       576.0       264.9       24.6       1.00006         -55.8       298.2       574.3       264.6       25.0       1.00006         -57.1       292.8       572.6       265.4       25.9       1.00006         -57.1       292.8       572.6       265.4       1.00006         -58.4       268.4       25.9       1.00006         -58.4       268.4       25.9       1.00006         -60.9       282.3       567.5       265.9       1.00006         -60.9       272.2       565.8       268.9       26.0       1.00006         -62.1       272.2       565.8       268.6       26.0       1.00006         -63.7       260.9       565.8       261.9       24.9       1.00006         -64.2       255.2       563.1       255.7       25.3       1.00006         -64.9       266.8       566.8       266.9       255.7       255.7       255.7       255.7         -64.9       266.9       266.9       266.9       266.9       266.9       266.9       266.9         -64.9       266.9       266.9       266.9       266.9       266.9       266.9       266.9       266.9	100	5.3	-55.3			305.4	5.77.5	205.5	24.3	1.000069
-55.6       -59.6       298.2       574.3       264.6       25.0       1.000066         -57.1       292.8       572.6       265.4       25.9       1.00006         -58.4       26.4       25.4       1.00006       25.9       1.00006         -59.6       282.3       569.2       267.5       26.0       1.00006         -60.9       277.2       567.5       26.0       1.00006         -62.2       277.2       565.8       268.6       26.0       1.00006         -62.2       272.2       565.8       268.6       26.0       1.00006         -63.1       266.8       566.8       26.0       1.00006         -63.7       260.9       563.8       261.9       24.9       1.00006         -64.2       255.2       563.1       24.9       24.9       1.00006         -64.2       266.8       566.2       249.4       25.1       1.00006         -64.2       266.8       266.1       255.7       249.4       26.1       1.00006         -64.9       266.8       266.8       266.1       266.1       266.1       266.1       266.1       266.1       266.1       266.1       266.1       266.1	19	9.0	-54.5			303.8	576.0	6.497	24.6	
-57.1 -57.1 -56.4 -59.6 -59.6 -59.6 -60.9 -62.2 -60.9 -62.2 -60.9 -62.2 -63.1 -63.1 -64.2 -64.2 -64.9 -65.7 -66.9	186	6.1	-55.8			298.2	574.3	564.6	25.0	1.000066
-56.4 -59.6 -60.9 -62.2 -62.2 -63.1 -63.7 -64.2 -64.2 -64.2 -64.2 -64.2 -64.2 -64.2 -64.3 -64.2 -64.3 -64.3 -64.3 -64.3 -64.3 -64.4 -65.7 -64.9 -65.7 -66.9	181	1.6	-57.1			292.8		765.4	25.4	1, 90006 5
-59.6 -59.6 -60.9 -62.2 -62.2 -62.2 -63.1 -63.1 -63.7 -64.2 -64.2 -64.2 -64.3	11	7.3	-58.4			267.5		200.0	55.9	1.000064
-60.9 -62.2 -62.2 -63.1 -63.1 -63.1 -63.7 -64.2 -64.2 -64.9 -65.7 -64.9	11	3.0	-59.6			282.3		267.5	26.0	1.000003
-63.1 266.8 564.6 265.3 25.4 1.000361 -63.1 266.8 564.6 265.3 25.4 1.000057 -64.2 260.9 563.8 261.9 24.9 1.000057 -64.2 255.2 563.1 255.7 25.3 1.000057 -64.9 26.1 249.4 26.1 1.000057 -65.7 25.3 561.1 243.6 27.2 1.000057 -65.7 25.1 559.9 244.0 27.2 1.000057	16	5.0	6.09-			277.2		508.9	20.5	1.000062
-63.1 -63.7 -64.2 -64.2 -64.2 -64.2 -64.3 -64.3 -64.9 -65.7 -64.9 -65.7 -64.9 -65.7 -64.9 -65.7 -64.9 -65.7 -64.9 -65.7 -64.9 -65.7	191	6.4	-62.2			272.2		768.6	26.0	1,0000,1
-63.7 -64.2 -64.2 -64.9 -65.2 -64.9 -65.7 -64.9 -65.7 -6	161	0.0	-63.1			266.8		205.3	25.4	1.000059
-64.2 255.2 563.1 255.7 25.3 1.000051 -64.9 249.6 562.2 249.4 26.1 1.000051 -65.7 25.7 26.1 1.000051 -65.7 25.7 25.2 1.000051 -65.7 25.1 244.3 561.1 243.6 27.2 1.000051 -66.0 27.4 1.000051 -66.0 27.4 1.000051	15	6.9	-63.7			260.9	563.8	261.9	54.9	1,0000,3
-64.9 -64.9 -64.9 -64.3 -64.9 -65.7 -65.7 -65.0 -65.7 -65.0	15	3.0	2.49-			255.2	563.1	255.7	25.3	1.000057
-65.7 244.3 561.1 243.6 27.2 1.000050 239.1 559.9 244.0 27.4 1.000050 27.4 1.000050 27.4 1.000050 27.4 1.000050 27.4 1.000050 27.4 1.000050 27.4 1.000050 27.4 1.000050	1 4	9.2	6.49-			249.6	597.5	h-6h7	26.1	1.000056
-66.6 239.1 559.9 Z44.0 27.4 1.00005	14	5.5	1.69-			244.3	-	243.6	27.2	.00005
	= :	9.1	9.09-			239.1	Ī	0.442	27.4	. 30000

AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION. \*

STATION ALTITUDE 4126.59 FEET MSL 24 AUG. 77 ASCENSION NO.

GEOMETRIC

50503.0 51000.0 51500.0

45530.0 5000000

9.00064

MSL FEET ALTITUDE

52530.0

53000-0 53500.0 54000.0 54500,0

5-6000-0

GEONETIC COORNINATES

UPPER AIR CAIA

32.85865 LAT DEG 106.03965 LON DEG 1.000045 1.000042 1.000051 1.039953 0900040 1.000049 1.0000 %p 1,000048 1.000047 REFRACTION INDEX 24.9 20.0 14.9 11.8 8.1 KNOTS SPEFF WIND DATA DEGREES( IN) DIRECTION 249.7 261.5 4.5 45 272.3 4.097 560.9 SPEED OF 556.4 552.4 554.1 551.7 550.5 553.5 552.4 557.6 551.6 554.5 550.3 KNOTS SOUND TABLE XI. (CONT) 2360010591 215.6 193.6 224.5 214.9 206.0 225.1 210.4 201.6 189.2 183.7 160.4 HOLLOMAN GM/CUBIC REL.HUM. DENSITY METER PERCENT DEWPO INT DEGREES CENTIONADE TEMPERATURE 1930 HRS MDT -76.0 -73.5 -72.1 -11.3 A IR -68.0 -70°0 -69.1 -70.9 -11.7 -70.6 MILL IBARS PRESSIRE 126.0 124.0 121.7 118.6 115.5 131.3 104.1 109.7 134.7 136.9

MANCATORY LEVELS	2360010591	HOLLOMAN	TABLE XII.
	STATION ALTITUDE 4126.59 FEET MSL	2* AUG. 77 1000 HRS MDT	ASCENSION NO. 591

GEONETIC COORNINATES 32.88865 LAT DEG 106.09965 LON DEG

RESSURE G	PRESSURE GEOPOTENTIAL		I E MPERATURE	REL.HUM.	13	WI NO DA TA
MILL IBARS	FEET	DEGREES	AIR DEWPOINT DEGREES CENTIBRADE	PE RCENT	CIMECTION DEGREES(TN)	ON SPEED
850.0	5011.	25.3	11.5	44.	0.6665	XX0. 6666
833.0	0754.	23.2	1.2	36.	0.6666	XX7.6666
750.0	8589.	19.3	5.4	40.	235.5	9.
700.0	10522.	14.9	3.4	46.	223.1	1.2
0.050	12563.	4.7	5.	52.	201.1	0.9
6.009	14724.	4.2	1.4-	52.	207.9	10.0
550.0	17025.	-1.3	0.6-	56.	244.4	7.0
500.0	19495.	-6.3	-10.0	40.	279.8	14.5
450.0	22180	-10,2	-26.8	24.	261.7	19.2
4.00.0	25130.	-15.1	-28.4	31.	267.0	13.6
350.0	26396.	-22.1	-39.7	18.	267.2	13.0
300.0	32054.	-30.7	-45.0	23.	255.1	15.5
250.0	36215	-41.0			264.1	19.6
200.0	41071.	-52.0			265.1	24.1
175.0	43863.	-59.0			267.3	26.0
150.0	46985.	1-64-7			240.3	26.3
125.0	50583.	-10.8			200.6	18.9
130.0	24893.	-74.5				

AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES. ×